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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,173	01/30/2002	Clinton S. Hartmann	RFSC-0005	2725
27964	7590	12/01/2004	EXAMINER	
HITT GAINES P.C. P.O. BOX 832570 RICHARDSON, TX 75083			ODLAND, DAVID E	
			ART UNIT	PAPER NUMBER
			2662	

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/066,173

Applicant(s) **UK**

HARTMANN, CLINTON S.

Examiner

David Odland

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The following is a response to the amendments filed on 10/01/2004.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5-13 and 15-20, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Ueno et al. (USPN 3,767,855), hereafter referred to as Ueno.

Referring to claims 1 and 11, Ueno discloses system for producing a propagated signal (a signal is modulated for transmission through a communications system (see abstract and column 1 lines 1-64)), comprising:

a means for encoding an element of data within a time period of said propagated signal (data bits represented by pulses are within a time period of a frame and are thus encoded (see figures 1A-1D and column 1 lines 1-64)), said time period divided into a group of time slots (a frame spans multiple time periods, T1, which are divided into time slots 0-7 for each time period (see figure 1B)); and

multiple pulses distributed in a predetermined manner among said group of time slots by pulse group keying to encode said element of data (several words of a frame overall comprise multiple pulses (i.e. one pulse per word) and are encoded using pulse position modulation

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(PPM), wherein the frame is denoted by a frame synchronization pulse Pf (see figure 1D and column 1 lines 60-64)). Note it appears as though the Ueno reference has a typographical error since in column 1 lines 60-64, Ueno discloses that frame synchronization word Pf is to replace the word synchronization pulse Pw, but figure 1D still shows Pw, therefore Pw should be interpreted as Pf.

Referring to claims 2 and 12, Ueno discloses the system discussed above. Furthermore, Ueno discloses that the element of data is ascertainable by mapping (inherently, at the receiving end of the transmission the PPM encoded signal is mapped back to a digital signal so that it can be processed (see abstract and item 112 of figure 2B)).

Referring to claims 3 and 13, Ueno discloses the system discussed above. Furthermore, Ueno discloses that the time slots in said group are adjacent (the time slots in Ueno are adjacent (see figure 1B)).

Referring to claims 5 and 15, Ueno discloses the system discussed above. Furthermore, Ueno discloses that the time slots have differing characteristics (the time slots have different numbers (i.e. 0 through 7) (see figure 1B)).

Referring to claims 7 and 17, Ueno discloses the system discussed above. Furthermore, Ueno disclosed that the element of data is selected from the group consisting of a header, an error detection message, a synchronization element and a data message (the data is message information from a transmitter (see column 1 lines 1-64)).

Referring to claims 8 and 18, Ueno discloses the system discussed above. Furthermore, Ueno disclosed a plurality of said time periods (the PPM words are divided into a plurality of frames for transmitting the data (see figures 1A-1D and column 1 lines 1-64)).

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Referring to claims 9 and 19, Ueno discloses the system discussed above. Furthermore, Ueno disclosed that the time periods have differing numbers of multiple pulses (a differing number of pulses can exist within a frame since the number of words in a frame can vary (see figure 1A –1D)).

Referring to claims 10 and 20, Ueno discloses the system discussed above. Furthermore, Ueno disclosed that the number of time slots vary in said time periods (the number of time slots can vary based on the value of N in 2^N (see column 1 lines 30-39)).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno in view of Austin (USPN 6,236,855), hereafter referred to as Austin.

Referring to claims 4 and 14, Ueno discloses the system discussed above. Ueno does not disclose that the time slots are not adjacent. However, Austin discloses a system wherein stations utilize non-adjacent time slots for communicating, thereby preventing or reducing channel interference. Therefore, it would have been obvious to one skilled in the art at the time of the invention to utilize timeslots that are not adjacent in the Ueno system because doing so would aid in preventing inter channel interference.

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6. Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno.

Referring to claims 6 and 16, Ueno discloses the system discussed above. Furthermore, Ueno disclosed that the data that is more than fifteen bits long is encoded in said group (more than fifteen bits are encoded (see figure 1A). Note, figure 1A only shows 9 bits being encoded but that is because this is only a snapshot of an example of the encoding process. The bits are a stream that would have to be more than 15 bits, since it would not make sense to devise a communication system that only encodes 9 bits. Ueno does not disclose that the time period is divided into a group of sixteen time slots and a number of corresponding states corresponds to the fifteen bits. However, it would have been obvious to one skilled in the art at the time of the invention to implement Ueno with this feature because doing so would increase the bandwidth of the Ueno system since current it does not support this many number of time slots in a group.

Response to Arguments

7. Applicant should submit an argument under the heading "Remarks" pointing out disagreements with the examiner's contentions. Applicant must also discuss the references applied against the claims, explaining how the claims avoid the references or distinguish from them.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Odland, who can be reached at (703) 305-3231 on Monday – Friday during the hours of 8am to 5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached at (703) 305-4744. The fax number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, who can be reached at (703) 305-4750.

deo

November 28, 2004

A handwritten signature in black ink, appearing to read 'J. Pezzlo', with a long horizontal stroke extending to the right.

JOHN PEZZLO
PRIMARY EXAMINER